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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,910	10/20/2001	Umit Tarakci	PA1884US	1005
22830	7590	10/22/2003	EXAMINER	
CARR & FERRELL LLP 2200 GENG ROAD PALO ALTO, CA 94303			JAWORSKI, FRANCIS J	
			ART UNIT	PAPER NUMBER
			3737	9
DATE MAILED: 10/22/2003				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,910

Applicant(s)

TARAKCI ET AL.

Examiner

Jaworski Francis J.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-48 are is/are pending in the application.
- 4a) Of the above claim(s) 10-14, 18-47 are is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 15-17 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The restriction requirement set forth in paper No. 7 is made final. Applicants' argument that no method of use claims are present is not persuasive, see claims 44-47. Additionally, claims are present to both species of conductive post construct – conductive intermediate and intermediate with discrete conductor. Claim 1 was provided as an example of a generic claim without regard to other generic claims present. If and when a generic claim is found to be allowable, claims drawn to the non-elected Fig. 4-10 species may be rejoined to this application. Claims 1 – 9, 15-17 and 48 are present for examination; remaining claims stand withdrawn from consideration as drawn to non-elected inventions and/or species.

Parenthesized claim numbers refer to the claim against which the rejection reasoning is being applied.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by any of Chiang et al (US5957846) Figs. 39A, B. or Barabash et al (US6138513) Fig. 3d in light of applicants' page 11 line 14 definition cableless=wireless, or Smith et al (US5744898) see Title and col. 16 lines 11-17, or Lorraine et al (US5559388) col. 4 – 5 line 2 in light of applicants respective definitions spec page 6 lines 12-16 that 'cableless = direct T/r connected/flex-circuit connected respectively.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 -4, 6-9, 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kunkel (US5648942) alone or further in view of Gilmore (US6043590) or Smith et al (US57448980). Kunkel teaches providing a combined acoustic isolation-intrinsically conductive post assembly 12 to an ultrasound imaging array. Irrespective of applicants' inferentially defining 'coupling' as connecting, see Fig. 11A, B, the Examiner is arguing here that applicants' claim is broader than 'cable-less' or 'anything-other-than-a- cable (vide supra) in that coupling if interpreted in electronic terms means 'in the conductivity path of' with no further limitation as to immediacy or direct connection, whereupon the conventional printed-board to cable contemplated in Kunkel col. 5 lines 9-44 versus applicants' page 4 para [0011] definition of prior art conventionality nonetheless arguably meets the claim language.(Claims 2, 7).

Alternatively, Gilmore with 20 teaches direct flex circuit connection via such a dual function backing to a transmit/receive circuit. Alternatively still, Smith et al teaches bring the T/R circuitry into the scanhead for direct connection to the array and its backing for density and cable-less purposes, whereupon 12 of Kunkel would attach directly to such integrated circuit in underlay to the array. Kunkel teaches acoustically active material between electrodes (col. 1 lines 30-32) (claim 3). as well as matching layers 64, 68 (claim 4). Filler material 14 of Kunkel fills the kerfs defining posts 12. (Claim 6).


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The posts of Kunkel would be anisotropic internally and isotropic with respect to the exterior due to being boundarized by the insulating filler. (claims 89, 16-17). An acoustic window or non-blocking aperture is essential as in the camera sense in order to transmit the ultrasound out of the device. See also Smith et al fig. 5 discussion and claim discussions supra. (Claim 15).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kunkel alone or further in view of Gilmore or Smith et al as applied to claim 2 above, and further in view of Daigle (US5795297) which would teach immediate connection of motherboard 80 of Fig. 3 to the beamformer and scanhead as part of streamlined PC interfacing within the scan system.

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kunkel in view of Gilmore or Smith et al, since Kunkel alone meets a 'coupling' but not a cable-less relationship to the T/R circuitry as discussed above.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 703-308-3061.


Primary Examiner
AU 3737

FJJ:fjj

10-17-03